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No. 99-1426

IN THE

SUPREME COURT OF THE UNITED STATES

AMERICAN TRUCKING ASSOCIATIONS, INC., *ET AL.*,
Cross-Petitioners,

v.

CAROL M. BROWNER, ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY, *ET AL.*,
Cross-Respondents.

ON WRIT OF *CERTIORARI*
TO THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

BRIEF *AMICI CURIAE* OF AEI-BROOKINGS JOINT CENTER FOR REGULATORY STUDIES, KENNETH J. ARROW, ELIZABETH E. BAILEY, WILLIAM J. BAUMOL, JAGDISH BHAGWATI, MICHAEL J. BOSKIN, DAVID F. BRADFORD, ROBERT W. CRANDALL, MAUREEN L. CROPPER, CHISTOPHER C. DEMUTH, GEORGE C. EADS, MILTON FRIEDMAN, JOHN D. GRAHAM, WENDY L. GRAMM, ROBERT W. HAHN, PAUL L. JOSKOW, ALFRED E. KAHN, PAUL R. KRUGMAN, LESTER B. LAVE, ROBERT E. LITAN, RANDALL W. LUTTER, PAUL W. MACAVOY, PAUL W. MCCRACKEN, JAMES C. MILLER III, WILLIAM A. NISKANEN, WILLIAM D. NORDHAUS, WALLACE E. OATES, PETER PASSELL, SAM PELTZMAN, PAUL R. PORTNEY, ALICE M. RIVLIN, MILTON RUSSELL, RICHARD L. SCHMALENSEE, CHARLES L. SCHULTZE, V. KERRY SMITH, ROBERT M. SOLOW, ROBERT N. STAVINS, JOSEPH E. STIGLITZ, LAURA D'ANDREA TYSON, W. KIP VISCUSI, MURRAY L. WEIDENBAUM, JANET L. YELLEN, AND RICHARD J. ZECKHAUSER IN SUPPORT OF CROSS-PETITIONERS

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INTEREST OF *AMICI CURIAE*

This brief is being submitted on behalf of a group of economists.[1] The purpose of the brief is not to attempt to guide the Court on legal issues but to inform it on economic ones. To put ourselves in the best possible position to offer the Court our expertise, we have tried to understand, in light of the legal task confronting the Court, where our own economic expertise might have a useful role to play.

To that end, we understand that the lawyers who brought this case framed the following question for the Court's consideration: "Whether the Clean Air Act requires that the Environmental Protection Agency ignore all factors 'other than health effects relating to pollutants in the air'" when setting National Ambient Air Quality Standards (NAAQS). We also understand that this question has arisen in part because the United States Court of Appeals in Washington, D.C., whose responsibility it is to review air quality standards issued by the Environmental Protection Agency (EPA), has interpreted the Clean Air Act as barring the EPA from even considering the potential costs of its air quality regulations.

The merits of this legal debate between the D.C. Circuit and the counsel who have contested the D.C. Circuit's views are beyond the scope of our economic expertise and hence of this brief. Nonetheless, we respectfully offer the following observations with hopes that they may ultimately prove useful.

The importance of this issue cannot be overstated. Both the direct benefits and costs of environmental, health, and safety regulations are substantial–estimated to be several hundred

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[1] No counsel for any party to this case authored this brief in whole or in part; and no person other than the *amici*, their members, or their counsel made a monetary contribution to the preparation or submission of this brief.

billion dollars annually. If these resources were better allocated with the objective of reducing human health risk, scholars have predicted that tens of thousands more lives could be saved each year.[2] All presidents since Nixon–both Democratic and Republican–have attempted to make environmental, health, and safety regulations more efficient by requiring some form of oversight attempting to balance benefits and costs. President Reagan and President Clinton each crafted an executive order that required an explicit balancing of benefits and costs for major regulations to the extent permitted by law. A comprehensive regulatory impact analysis (RIA) prepared in conformance with President Clinton's Executive Order 12866 was done for the ozone and particulate matter rulemaking, but it played no official or overt part in the decision in this case because of the D.C. Circuit's view that costs must not be considered.

The issue presented in this case is of great significance to *amici curiae*. In 1998, the American Enterprise Institute (AEI) and the Brookings Institution established the AEI-Brookings Joint Center for Regulatory Studies (Joint Center) to help improve regulation and the regulatory process. A principal focus of the Joint Center is to analyze the economic benefits and costs of regulations, such as the ones being considered here, and to explore the implications of court decisions involving regulation. The Joint Center and the economists submitting this brief have a substantial interest in seeing that the Court

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[2] *See* Tammy O. Tengs and John D. Graham, *The Opportunity Costs of Haphazard Social Investments in Life-Saving, in* RISKS, COSTS, AND LIVES SAVED: GETTING BETTER RESULTS FROM REGULATION (Robert W. Hahn ed. 1996). (The authors, from the Harvard School of Public Health, calculated that improved priority setting across federal agencies could provide either savings of $31.1 billion from current cost levels with no additional loss of life or savings of 60,200 lives at current cost levels.)

interprets the Clean Air Act in a manner that encourages sound decisions and in a way that is consistent with the law as established by Congress.

To that end the Joint Center asked the economists who are signatories to this brief to identify principles that are appropriate for setting National Ambient Air Quality Standards as well as for making other important regulatory decisions. The Joint Center and these economists are accordingly submitting this brief in the interest of improving regulatory decisionmaking as well as making it more transparent. All parties have consented to the filing of this brief.

BACKGROUND

A. Procedural History

In 1996, the EPA initiated rulemakings to revise the National Ambient Air Quality Standards for ozone and particulate matter (PM). The EPA prepared an RIA that suggested that the costs of the ozone standards would exceed the benefits while the benefits of the particulate matter standards would exceed the costs. The Joint Center strongly favors using such RIAs in decisionmaking and, without endorsing the quality of all aspects of the RIA here, believes that the ozone and PM RIA should have been considered in setting the standards. The D.C. Circuit ruled, however, that *Lead Industries* barred any consideration of costs and hence was unwilling to consider whether a balancing of benefits and costs might provide the requisite "intelligible principle" needed to resolve the constitutional problems that it found with EPA's interpretation of the statute.[3]

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[3] *See Lead Indus. Ass'n v. EPA*, 499 U.S. 1042 (D.C. Cir. 1980).

B. Nature and Importance of Benefit-Cost Analysis

The concern of the Joint Center along with that of the other signatories is how analytical methods, such as benefit-cost analysis, should be used in regulatory decisionmaking.[4] These methods can help promote the design of better regulations by providing a sensible framework for comparing the alternatives involved in any regulatory choice. Such analysis improves the chances that regulations will be designed to achieve a particular social goal specified by legislators at a lower cost.[5] In addition, they can make the regulatory process more transparent by providing an analytical basis for a decision. Greater transparency in the process, in turn, will help hold regulators and lawmakers more accountable for their decisions.

These analytical methods are neither anti- nor proregulation; they can suggest reasons why it would be desirable to have tighter or more lenient standards depending on the results of an analysis. For example, the benefit-cost analyses in the RIA on particulate matter and ozone could be interpreted as suggesting that the ozone standard should not be lowered while a new PM standard for fine particles should be introduced to protect public health.

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[4] *See* KENNETH J. ARROW, MAUREEN L. CROPPER, GEORGE C. EADS, ROBERT W. HAHN, LESTER B. LAVE, ROGER G. NOLL, PAUL R. PORTNEY, MILTON RUSSELL, RICHARD L. SCHMALENSEE, V. KERRY SMITH, AND ROBERT N. STAVINS, BENEFIT-COST ANALYSIS IN ENVIRONMENTAL, HEALTH, AND SAFETY REGULATION: A STATEMENT OF PRINCIPLES (1996) ("ARROW *et al.*"); *see also* ROBERT W. CRANDALL, CHRISTOPHER DEMUTH, ROBERT W. HAHN, ROBERT E. LITAN, PIETRO S. NIVOLA, AND PAUL R. PORTNEY, AN AGENDA FOR FEDERAL REGULATORY REFORM (1997).

[5] *See* ARROW *et al.*

C. Evolution of the Use of Benefit-Cost Analysis in Regulatory Decisionmaking

Over the past two decades, support has been growing for the proposition that weighing of benefits and costs should play a more central role in regulatory decisionmaking. All three branches of government have recognized the importance of considering benefits and costs in designing regulation.[6]

To address the increase in regulatory activity over the past three decades, the past five presidents and President Clinton have introduced different analytical requirements and oversight mechanisms with varying degrees of success. A central component of later oversight mechanisms was formal economic analysis, which included benefit-cost analysis and cost-effectiveness analysis. Since 1981, presidents have required the preparation of RIAs for a predefined class of significant regulations.[7] President Reagan's Executive Order 12291 required an RIA for each significant regulation whose annual impact on the economy was estimated to exceed $100 million. President Bush used the same executive order. President Clinton's and President Reagan's executive orders require a benefit-cost analysis for significant regulations as well as an

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[6] *See, e.g.*, Richard H. Pildes and Cass R. Sunstein, *Reinventing the Regulatory State*, 62 U. CHI. L. REV. 1, 8–11 (1995).

[7] While the definition of a "significant" regulation has changed somewhat over time, it is generally a regulation that is expected to have one or more of the following characteristics: an annual impact on the economy of $100 million or more; a major increase in costs or prices for consumers or business; or significant effects on competition, employment, investment, productivity, or innovation. President Reagan's Executive Order 12291 described such regulations as "major," while President Clinton's Executive Order 12866 described them as "significant." We will use the term *significant* because it is used by the most recent executive order.

assessment of reasonably feasible alternatives to the planned regulation.[8]

Congress has also shown increasing interest in emphasizing the balancing of benefits and costs in regulatory decisions. The Small Business Regulatory Enforcement Fairness Act of 1996 requires agencies to submit final regulations to Congress for review.[9] The regulatory accountability provisions of 1996, 1997, and 1998 require the Office of Management and Budget to assess the benefits and costs of existing federal regulatory programs and to recommend programs or specific regulations to reform or eliminate. The Unfunded Mandates Reform Act of 1995 requires agencies, unless prohibited by law, to choose the most cost-effective regulatory approach or otherwise explain why they have not chosen this alternative.[10]

The courts have also been receptive to the use of benefit-cost analysis in decisionmaking. Indeed, the D.C. Circuit recently held in *State of Michigan v. EPA*, 2000 WL 180650, at *12 (D.C. Cir. 2000), that "[i]t is only where there is 'clear congressional intent to preclude consideration of cost' that we find agencies barred from considering costs." The court went on to cite various cases and legal authorities for the "general view

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[8] The language in those two executive orders is very similar, suggesting bipartisan presidential support for benefit-cost analysis. *See* Executive Order 12291, 46 FED. REG. 13,193 (Feb. 17, 1981). "Regulatory action shall not be undertaken unless the potential benefits to society for the regulation outweigh the potential costs to society. . . . Regulatory objectives shall be chosen to maximize the net benefits to society." *Id.* at § 2. *See also* Executive Order 12866, 58 FED. REG. 51,735 (Oct. 4, 1993). "In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives. . . . Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits . . ., unless a statute requires another approach." *Id.* at § 1.

[9] 15 U. S. C. § 601 *et seq.*

[10] 2 U. S. C. § 1535.

that preclusion of cost consideration requires a rather specific congressional direction." *Id.* This case and others led Professors Robert H. Frank and Cass R. Sunstein to conclude that "[f]ederal law now reflects a kind of default principle: Agencies will consider costs, and thus undertake cost-benefit analysis, if Congress has not unambiguously said that they cannot."[11]

SUMMARY OF ARGUMENT

As we understand it, the D.C. Circuit did not allow the EPA to consider the costs of complying with ozone and PM NAAQS. As we further understand it, this legal ruling can be overturned only by this Court. As economists, we believe that the D.C. Circuit's ruling not allowing the EPA to consider important information relating to the consequences of its regulatory actions is economically unsound. Without delving into the legal aspects of the case, we present below why we think the Court should allow the EPA to consider costs in setting standards. In particular, we believe that, as a general principle, regulators should be allowed to consider explicitly the full consequences of their regulatory decisions. These consequences include the regulation's benefits, costs, and any other relevant factors.

ARGUMENT

We approach the question presented in this case from the perspective of the "default principle" summarized by Professors Frank and Sunstein.

Nothing in the following statutory text of section 109(b) of the Clean Air Act precludes consideration of costs:

> National primary ambient air quality standards . . . shall be ambient air quality standards the

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[11] ROBERT H. FRANK AND CASS R. SUNSTEIN, COST-BENEFIT ANALYSIS AND RELATIVE POSITION, (AEI-Brookings Joint Center for Regulatory Studies Working Paper 00-5, 2000), at 8.

> attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing a margin of safety, are requisite to protect the public health.[12]

Indeed, the plain aim of this provision is protecting the "public health," and that aim is unlikely to be achieved without, at least, an implicit balancing of benefits and costs.

Benefit-cost analysis is simply a tool that can aid in making decisions. Most people do a kind of informal benefit-cost analysis when considering the personal pros and cons of their actions in everyday life–more for big decisions, like choosing a college or job or house, than for little ones, like driving to the grocery store. Where decisions, such as federal environmental regulations, are by their nature public rather than private, the government, as a faithful agent of its citizens, should do something similar.

Carefully considering the social benefits and social costs of a course of action makes good sense. Economists and other students of government policy have developed ways of making those comparisons systematic. Those techniques fall under the label benefit-cost analysis. Benefit-cost analysis does not provide *the* policy answer, but rather defines a useful framework for debate, either by a legislature or, where the legislature has delegated to a specialized agency the responsibility of pursuing a general good, by that agency.

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[12] 42 U.S.C. § 7409(b)(1).

I. A GROUP OF ECONOMISTS DEVELOPS A CONSENSUS ON THE USE OF BENEFIT-COST ANALYSIS FOR ENVIRONMENTAL REGULATION.

Economists, other policy experts, and the regulatory agencies themselves have produced a large literature on the methods and applications of benefit-cost analysis. There are, and always will be, many uncertainties and disagreements about those methods and their application in particular cases. Nevertheless, a wide consensus exists on certain fundamental matters. In 1996, a group of distinguished economists, including Nobel laureate Kenneth Arrow, were assembled to develop principles for benefit-cost analysis in environmental, health, and safety regulation.[13] Here, we summarize and paraphrase for the Court a number of principles that we think could be helpful in this case, which involves the review of the EPA's NAAQS standard-setting decisions.

A benefit-cost analysis is a useful way of organizing a comparison of the favorable and unfavorable effects of proposed policies. Benefit-cost analysis can help the decisionmaker better understand the implications of a decision. It should be used to inform decisionmakers. Benefit-cost analysis can provide useful estimates of the overall benefits and costs of proposed policies. It can also assess the impacts of proposed policies on consumers, workers, and owners of firms and can identify potential winners and losers.

In many cases, benefit-cost analysis cannot be used to prove that the economic benefits of a decision will exceed or fall short of the costs. Yet benefit-cost analysis should play an important role in informing the decisionmaking process, even when the information on benefits, costs, or both is highly uncertain, as is often the case with regulations involving the

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[13] *See* ARROW *et al.*

environment, health, and safety.

Economic analysis can be useful in designing regulatory strategies that achieve a desired goal at the lowest possible cost. Too frequently, environmental, health, and safety regulation has used a one-size-fits-all or command-and-control approach. Economic analysis can highlight the extent to which cost savings can be achieved by using alternative, more flexible approaches that reward performance.

Benefit-cost analysis should be required for all major regulatory decisions. The scale of a benefit-cost analysis should depend on both the stakes involved and the likelihood that the resulting information will affect the ultimate decision.

Agencies should not be bound by a strict benefit-cost test, but should be required to consider available benefit-cost analyses. There may be factors other than economic benefits and costs that agencies will want to weigh in decisions, such as equity within and across generations.

Not all impacts of a decision can be quantified or expressed in dollar terms. Care should be taken to ensure that quantitative factors do not dominate important qualitative factors in decisionmaking. A common critique of benefit-cost analysis is that it does not emphasize factors that are not easily quantified or monetized. That critique has merit. There are two principal ways to address it: first, quantify as many factors as are reasonable and quantify or characterize the relevant uncertainties; and second, give due consideration to factors that defy quantification but are thought to be important.

II. IF AT ALL POSSIBLE GIVEN THE RELEVANT LEGAL AUTHORITIES, THE COURT SHOULD HOLD THAT SECTION 109(B) ALLOWS CONSIDERATION OF BOTH BENEFITS AND COSTS WHEN SETTING NAAQS.

We believe all of the available information should be considered in making any important decision. If costs or other types of data are deliberately left out, the quality of decisionmaking is likely to suffer. In particular, we make one recommendation, closely related to the Arrow *et al.* principles: The Court should allow the EPA to consider costs in setting NAAQS, so that these costs can then be assessed along with benefits and any other important information.

We believe that it would be imprudent for the EPA to ignore costs totally, particularly given their magnitude in this case. Together, the EPA estimates that those standards could cost on the order of $50 billion annually. Not considering costs makes it difficult to set a defensible standard, especially when there is no threshold level below which health risks disappear. The EPA acknowledges that exposure to ozone presents a "continuum" of risk, as opposed to a threshold below which adverse health effects cease to occur.[14] If the EPA is required to set a standard "to protect the public health" with an "adequate margin of safety," then ignoring costs could lead to a decision to set the standard at zero pollution.[15] That alternative, however, would be self-defeating–it would harm public health by threatening the very economic prosperity on which public health primarily depends.

Once the Court allows the EPA to consider costs, Executive Order 12866 will require the EPA to consider the full range of benefits and costs in setting NAAQS. We think that

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[14] 62 FED. REG. 38,856, 38,863 (July 18, 1997).

[15] Clean Air Act § 109(b)(1), 42 U.S.C. § 7409(b)(1).

considering such information could improve both the regulatory decisionmaking process by making it more transparent and the regulatory decision by allowing all relevant information to be considered explicitly.

CONCLUSION

We believe that this Supreme Court case involving the setting of National Ambient Air Quality Standards could be a historic moment in the making of regulatory policy. This brief has argued that it would be imprudent not to consider costs in the setting of standards. In accordance with Executive Order 12866, we also believe that the full range of benefits and costs should be considered in decisionmaking. Accordingly, this Court should allow the Environmental Protection Agency to consider costs in setting nationwide air quality standards, so that this information can be considered along with benefits and any other relevant factors in setting a standard.

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